Zoomorphic Stone Beads from Vaishali, Bihar

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***Abstract**: Vaishali was one of the oldest and largest cities of India with an immense wealth of rich traditions and historical legends. The ruins of ancient city Vaishali at present falling under the jurisdiction of two districts of north Bihar viz. Vaishali and Muzaffarpur This area under the confederacy of Vajji with its capital of Vaishali, regarded as world oldest democracy. Vaishali was considered very important and was highly regarded due to its association with the life events of the Buddha. It stood on the royal ancient road leading from Pataliputra to Lumbini. Various archaeological excavation carried out by A.S.I. and other agencies and ancient remains from N.B.P. period to Post Gupta period has been unearthed in various locations in the ancient Vaishali region. A good number and variety of beads ranging from N.B.P. culture to early historic period have been preserved in Archaeological Museum Vaishali among them zoomorphic stone beads are highly interesting. These are in various shapes including tortoise, elephant, bird, cock, frog and hare. Some unfinished broken stone beads in the shape of peacock, fish, bird and insect are also found in Vaishali which suggest that these beads were manufactured locally, and lapidary art was very developed in Vaishali. The aim of the present paper is providing a brief glimpse of zoomorphic stone beads with its features and importance. These zoomorphic stone beads not only testified the aesthetic sense and craftsmanship of people of Vaishali but also throw the light on the religious aspect of bygone society.*

Keywords: Zoomorphic Beads, Amulets, Pendant, Symbolism, Fertility, Rebirth, Stupa

Introduction

From very remote past humans have always been trying to decorate themselves in such a way as would make them more presentable according to the trends of the time. Beads have played a significant role in reconstruction the cultural history of ancient India. Their presence portrays the life style, aesthetic sense, love for beauty and refinement, as well as social and financial status of the contemporary people. Various kinds of beads made of terracotta, semiprecious stones, faience, shell, bone, metal etc. have been revealed through the excavations and explorations at various sites of India. Beads are provided with string holes pass for making ornaments by fixing them in threads. They are of verifying shapes and dimensions including zoomorphic beads. A bead having or representing animal form is termed as zoomorphic bead. On the basis of position of perforation and probable use some zoomorphic beads also referred as amulets or pendants.

Tradition of zoomorphic beads may be traced from Harappan period. Faience amulet of ram and monkey reported from Harappa. The earliest zoomorphic stone bead referred as pendant noticed from late Harappan phase of Bhagwanpura (Haryana) .It is made of carnelian in the shape of humped bull (Mittra 2012: 10).On the basis of stratigraphy and a few radiometric dates the scholars have given the late Harappan dates bracket of c. 2000-1700BC (Sinha 2012: 84). A unique amulet seal of steatite found from Prabhas Patan from period III (c.1500-1200BC). Both the sides of seal are carved with figures of stylized deer, seven on one side and five on the other. It is perhaps the only it's kind of the post Harappan period (Dhavalikar 1989: 349). Tortoise shaped amulet made of shell found from Chalcolithic level of Prakash (Thapar 1967: 115).

From the early historical period, comparatively a greater number of zoomorphic beads or amulets in the form of tortoise, bird, frog, fish, lion, gargoyle (*makara*), bull, elephant, horse, hare, dog, monkey etc. have been reported. These beads are made of a variety of materials such as semiprecious stones, soap stone, terracotta, faience, metal etc. Among them zoomorphic beads made of stones are rare and found from limited sites. Zoomorphic stone beads have been reported from various early historical sites like as Taxila, Kausambi, Nasik, Kondapur, Kumrahar, Chirand, Sonpur and Vaishali etc (Tables 1 and 2). The maximum concentration of zoomorphic stone beads has been noticed from NBPW period to early Gupta level (Table 2).

Animals represented in zoomorphic beads having own symbolism and other sacred associations. Tortoise, elephant and bird shaped beads are most common in Early historical period. Tortoise is a symbol of perseverance and capacity to bear the most impossible burden, specially the powerful shell covering his back for uplifting a load none another can (Sivaramamurti 1974: 24). *Kurma* incarnation of lord Visnu for churning of sea also testified the importance of qualities of tortoise. Elephant is the very embodiment of great strength and yet the greatest symbol of restraint (Sivaramamurti 1974: 13). He is the symbol of majesty, power and dignity. The trumpeting of the elephant in the battlefield strikes terror in the enemy. He is the vehicle of Indra. Elephant also considered as previous birth of Buddha in various *jataka* tales. Cock and peacock are associated with God Kartikeya and parrot considered as vehicle of God Kamadeva.

Several semiprecious stones were used specially for zoomorphic beads right from the late Harappan period to Medieval period. Firstly, as a raw material these were easily available; secondly these are more durable and attractive than other material like terracotta, shell, faience, steatite etc. Some stones, according to ancient Indian literature, had curative value and magical properties (Ghosh 1989: 220). The use of yellow quartz was prescribed against jaundice (Dikshit 1952: 47). It is also believed that human life influenced by nine planets (*navagrahas*) either for good or for evil. As per Indian astrology different types of stones (precious and semiprecious stones) prescribed to arrest supernatural powers of planets and their effects. For example, ruby and red garnet for Sun; moonstone and agate for moon; red coral and carnelian for

Mars; emerald and jade for Mercury; yellow sapphire for Jupiter; diamond and crystal for Venus; blue sapphire, amethyst and lapis lazuli for Saturn etc. are prescribed in astrology.

Table 1: Zoomorphic Stone Beads from Vaishali

Sl. No.	Shape	Stone	Period	References
01.	Dog	Jasper	Sunga- Kushana	Sinha and Roy 1969:187
02.	Bird	Banded Agate	Pd II (Lower level of Sunga -Kushana Period)	Unpublished
03.	Hare	Soap stone	Surface collection	Unpublished
04.	Bird	Black jasper	Surface collection	Unpublished
05.	Cock	Carnelian	Surface collection	Unpublished
06.	Elephant	Quarts	Surface collection	Unpublished
07.	Elephant	Soap stone	Surface collection	Unpublished
08.	Frog	Soap stone	Surface collection	Unpublished
09.	Frog	Soap stone	Surface collection	Unpublished
10.	Tortoise	Banded Agate	Surface collection	Unpublished
11.	Peacock	Soap stone	Surface collection	Unpublished
12.	Fish	Banded Agate	Surface collection	Unpublished
13.	Bird	Quartz	Surface collection	Unpublished
14.	Insect	Banded Agate	Surface collection	Unpublished

Historical backdrop of Vaishali

Vaishali was one of the oldest cities of India with an immense wealth of rich traditions and historic legend (Deva and Mishra1961:1). According to Ramayana Ikshvaku queen Alambusha had a son named Vishala who founded the city and named it Vishalapuri (Ramachandran 1985: 129). According to Balmiki Ramayana Sumati was ruling at Vaishali when Lord Rama visited the place enroute to Mithila for his marriage (Sinha and Roy 1969: 1). Jain Tirthankar Mahavira was believed to be born at Kundagram in Vaishali, at present represented by the modern village of Vasukund (Ramachandran 1985:132-33). The *Kalpasutra* informs us that Mahavira spent nearly twelve rainy seasons in Vaishali Vanijyagrama (Prasad 2015:13). However, Vaishali is best known for its association with Buddha and Buddhism. Buddha is said to have performed a miracle and his sermons were delivered here. Buddhist texts speak of the wealth and glory of Vaishali and it was considered one of the great cities of India. Vaishali was highly regarded due to its association with the life events of the Buddha, such as here was the site of *Kutagarshala* at Kolhua, where Buddha used to stay during his visit to Vaishali. It was also the site where Buddha permitted the ladies to enter into the Buddhist *Sangha*. This place is also associated with one of the miracles of Lord Buddha in which the monkey king offered him a bowl of honey. Vaishali is further celebrated in the history of Buddhism as the site of second Buddhist council. It stood on the royal ancient road leading from Pataliputra to Lumbini.

Table 2: Zoomorphic Stone Beads from Various Indian Sites

Sl. No	Site	Shape	Stone	Period	Remarks	Reference
01.	Bhagwanpura (Haryana)	Bull	Carnelian	Late Harrapan (2000-1700 BC)	Referred as pendant	Mittra 2012:10
02.	Taxila (Now in Pakistan)	Duck	Chalcedony	5th Cen. BC	From Bhir mound	Beck1941:55
		Bird on tree	Carnelian	3rd Cen. BC	From Bhir mound	Beck1941:55
		Bull	Carnelian	3rd Cen. BC	From Bhir mound	Beck1941:55
		Bird	Garnet	1st Cen. BC	From Dharmarajika	Beck1941:55
		Tortoise	Garnet	1st Cen. BC	From Dharmarajika	Beck1941:56
		Frog	Glazed Quartz	1st Cen. BC	From Dharmarajika	Beck1941:56
		Frog	Garnet	1st Cen. BC	From Dharmarajika	Beck1941:56
		Frog	Amethyst	1st Cen. BC	From Dharmarajika	Beck1941:56
		Lion	Garnet	1st Cen. BC	From Dharmarajika	Beck1941:55
		Lion	Garnet	1st Cen. BC	From Dharmarajika	Beck1941:55
		Ram	Carnelian	1st Cen. AD	From Sirkap	Beck1941:55
		Dog	Carnelian	1st Cen. AD	From Sirkap	Beck1941:55
		Crow	Agate	1st Cen. AD	From Sirkap	Beck1941:55
		Tortoise	Glazed Quartz	1st Cen. AD	From Sirkap	Beck1941:55
		Frog	Agate	1st Cen. AD	From Sirkap	Beck1941:56
		Frog	Glazed Quartz	1st Cen. AD	From Sirkap	Beck1941:56
		Lion	Glazed Quartz	1st Cen. AD	From Dharmarajika	Beck1941:55
		Lion Bead	Carnelian	1st Cen. AD	From Sirkap	Beck1941:55
		Lion Bead	Lapis lazuli	1st Cen. AD	From Sirkap	Beck1941:55
		Lion Bead	Glazed Quartz	1st Cen. AD	From Sirkap	Beck1941:55
		Lion Bead	Glazed Quartz	1st Cen. AD	From Sirkap	Beck1941:55
		Elephant	Carnelian	3rd -4th Cen. AD	From Sirkap	Beck1941:55
03.	Ahichchhatra (U.P.)	Tortoise	Garnet	Surface	Referred as amulet	Dikshit 1952:48

04.	Rajghat (U.P.)	Bird	Jade	-		Sharma 1969:123
05.	Saheth Maheth (U.P.)	Bird (6 Nos.)	Stone	Kushana	Referred as amulet	Marshall 1914:15; Sharma 1969:123
06.	Piprahwa (U.P.)	Bird (2 Nos.)	Carnelian	-		Sharma 1969:123
07.	Kaushambi (U.P.)	Peacock	Jasper	-	Referred as pendant	Sharma 1969:123
08.	Pakkakot (U.P.)	Tortoise	Agate	NBP (900 BC-200BC)	Referred as pendant	Dubey and Sharma 2018:163
		Parrot	Crystal			
		Bird	Carnelian			
09.	Ujjain (M.P.)	Tortoise	Agate	1300-1400 AD	Referred as amulet	Dikshit 1968:97
10.	Akra (Bannu) (Now in Pakistan)	Tortoise	Crystal	Unstratified	,,	Dikshit 1968:98
11.	Balapur (Chattisgarh)	Tortoise	Banded Agade	Unstratified		Dikshit 1968:98
12.	Kausam (U.P.)	Tortoise	Agade, Carnelian, Chalcedony	Unstratified	3 No. of bead	Dikshit 1968:98
13.	Madhuri near Banaras (U.P.)	Tortoise	Carnelian	Unstratified		Dikshit 1968:98
14.	Nasik (Maharastra State)	Tortoise	Carnelian	Unstratified	2 No. of bead	Dikshit 1968:98
15.	Kumrahar (Bihar)	Tortoise	Carnelian	Unstratified	2 No. of bead	Dikshit 1968:98
16.	Sonpur (Bihar)	Dog	Crystal	Kushana		Sinha and Verma 1977:102
		Composite, Lion faced and scorpion body	Soft stone	NBPW		Sinha and Verma 1977:111
17.	Chirand (Bihar)	Composite, Lion Head and scorpion body	Soft stone	NBPW (800-200 BC)		Verma 2007:221

The remains of ancient city of Vaishali at present falls under the jurisdiction of two districts of north Bihar viz. Vaishali and Muzaffarpur, it covers a vast area represented by modern villages of Kolhua, Basukund, Basarh, Kamman Chhapra, Lalpura, Baniya, Manikpur and Bakhara etc. This area was under the confederacy of Vajji with its capital of Vaishali. Vaishali is well connected by road. It is about 60 km north from Patna and 40 km from Hajipur. Various archaeological excavation carried out by A.S.I. and other agencies and ancient remains from N.B.P. period to Post Gupta period has been unearthed in various locations in the ancient Vaishali region.

Zoomorphic Stone Beads from Vaishali

Zoomorphic beads have been the subject of a great deal of archaeological attention. These are the silent witnesses of religious believes, symbolism of animals and technological advancement of our glorious past. Vaishali is the only early historical site of modern India, which has yielded maximum number of zoomorphic stone beads (Table 1). Among them two stone beads recovered from excavation and rest from surface collection. These are made of banded agate, soap stone, carnelian, jasper and quartz. Two zoomorphic stone beads from Vaishali have been revealed through excavations. The description of these beads is given below:

A jasper bead in the shape of dog found at Vaishali (Sinha and Roy1969:187) from the Sunga –Kushana level. The dog is a loyal, brave and faithful creature and a great companion to the hunter. It may serve as an amulet for hunter community. Interestingly according to Buddhist texts Mahavan (great forest) is in the vicinity of Vaishali. Dog shaped carnelian bead also reported from Taxila datable to first century AD (Beck 1941: 55). A dog shaped crystal bead also recovered from Sonpur excavation (Sinha and Verma 1977: 102) from Kushana level.

A bird shaped bead (Acc. No. 452, size 2.0X0.5X0.4cm) made of banded agate of black colour with white bands unearthed during excavation from Kolhua (an important part of ancient Vaishali) in the year 1990-91. Bird is standing on a short pedestal. It is noted for fine execution with high class finish (Figure 1). Unfortunately, its beak and tail are partially missing. The wings of bird are decorated with slanting engraved lines. It has a vertical perforation. It was found from the lower level of period II (Sunga- Kushana period).Bird shaped stone beads also found from Taxila (Beck1941:55), Rajghat (Sharma 1969:123), Saheth-Maheth (Marshall 1914:15), Piprahwa (Sharma 1969:123)and Pakkakot (Dubey and Sharma 2018:163) .

A good number and variety of beads ranging from N.B.P. culture to Early Historic period have been preserved in Archaeological Museum Vaishali. Among them zoomorphic stone beads are highly interesting. These are in various shapes including tortoise, elephant, bird, cock, frog and hare. A total of eight zoomorphic stone beads (Figure 2) and four unfinished zoomorphic stone beads are kept in reserve collection in Archaeological Museum Vaishali. These are acquired by purchasing in the year 1977 and as per museum record; these beads are belonging to Medieval period. But as per

my opinion most of beads belong to earlier periods. All these beads collected from surface by locals. The descriptions of these zoomorphic beads are described in following paragraphs.

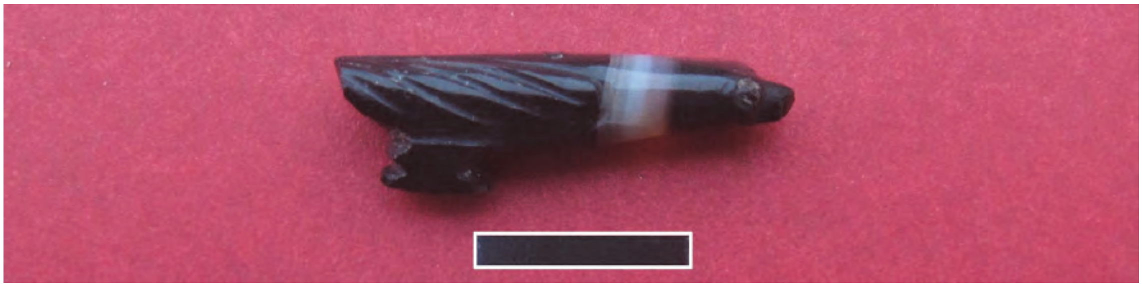


Figure 1: Bird shaped bead, banded agate, Kolhua, Sunga-Kushana period



Figure 2: Zoomorphic stone beads, Vaishali

Artistically carved bead of soap stone in the shape of hare (Acc. No.1687, size1.9 x 1.2 x 0.5 cm) deserve the mention. Its bent forelegs are indicating that the animal just ready for movement. Prominently carved eyes, ears, mouth and long hair on the body represented by incised lines are main features of the figure. A horizontal breadth wise perforation across the body may be seen for threading. The hare is the most innocent animal. Nimble and swift, this beautiful little animal could save himself in any situation (Sivaramamurti 1974:22). He is having extraordinary capacity to run.

An interesting bead is made of black jasper in shape of bird (Acc. No.1684, size2.00 x 0.9 x 0.8 cm) also deserve the mention. Bird is standing on a short pedestal. Very well executed bird with high class finish on its body is showing its head upward position. A crest on the head, embossed eyes and embossed incised wings are main features of the figure. Unfortunately, its back-half portion is missing. A vertical hole across the body is also present. A chalcedony bead in the shape of duck (Niharika1993:233) also reported from Taxila from N.B.P. period.



Figure 3: Close-up view of agate bead in the shape of tortoise



Figure 4: Zoomorphic unfinished stone beads, Vaishali

A carnelian made bead of red colour with the motif of cock figure (Acc. No.1688, size1.9 x 1.3 x 0.3 cm) also very interesting. Its beak, head, comb, wattle, sickle feathers, wings are well executed but legs not clear and eyes are not made. Incised lines seen on the body. It is a well finished specimen of its kind. The cock is the very embodiment of the fighting spirit. As a symbol of daring fight, the cock has been chosen both as an emblem on the banner and also closely hugged and held in his hand by Kartikeya, the commander in chief of the Gods (Sivaramamurti 1974:31). The association of cock with Kartikeya is possibly traceable to their common solar connection, because cock is regarded as the harbinger of the dawn (Rangarajan 2010:161).

Elephant shaped bead (Acc. No.1680, size1.3X1.0X0.7cm) made of white coloured quartz with poor workmanship also kept in possession of museum. The trunk and legs are missing, and a horizontal hole is present above the front leg.

Soap stone bead of white colour in the shape of frog deserve the attention. The first bead (Acc. No.1685, size1.4 x 0.9 x 0.7 cm) is showing the frog in sitting position. Its impressive bulging eyes, fore and hind legs are well executed. The mid dorsal line of frog is showing by the ridge. The naturalistic treatment of the attentive frog is worth observation. It had a lengthwise perforation just above the legs.

It is also made of soap stone of white colour (Acc. No.1686) in the shape of frog has the same size and posture of previous specimen, but in inferior workmanship in comparison of first.

Frog shaped stone beads found from Taxila ranging from first century BC to first century AD (Beck1941:55-56). Frog is a symbol of harmony, adaptability, fertility, and

rebirth. It is also considered as bringers of rain. In some parts of India frog weddings is also in vogue to appease god Indra for rain. A hymn in Rigveda also dedicated to frog. The frog charm is referred in Atharvaveda as effective against fever (Ghosh 1989:221).

Artistically executed agate bead of black colour with green bands in the shape of tortoise (Acc. No.1689, 0.7 x 0.45 x 0.45 cm) deserves the special attention (Figure 3). Prominent convex shell, head, neck, legs indicate that the animal just ready for movement, it has horizontal perforation at lower part between front and hind legs. Circular ring of green colour just above the upper part of shell beautified the specimen. It was a beautiful specimen showing great skill and care in its manufacture.

Tortoise is considered second incarnation of Lord Visnu as well as *vahana* of river Goddess Yamuna. In Jaina religion tortoise is *lanchhana* of twentieth Tirthankara Munisuvrata (Tiwari 1981:114). It is also considered to be the symbol of fortune and fertility. It is therefore persons desirous of attaining material prosperity should wear it. The popularity of the tortoise bead or amulet is attested from different excavations belonging to the Chalcolithic culture to the Gupta period. The earliest tortoise shaped amulet reported from Chalcolithic level at Prakash (Ghosh 1989:261). Tortoise shaped bead made of garnet found from Taxila and fragmentary tortoise shaped garnet amulet found from the Ahichchhatra (Niharika1993:250) from N.B.P. period. Tortoise shaped terracotta amulet also found from Sarai Mohna (Singh and Singh2004:76) from N.B.P. level. Terracotta tortoise amulets found from Lathiya (Mani et.al.2011:230), an important temple site of the Gupta period in district Ghazipur U.P., from Gupta level.

Another elephant shaped small red coloured carnelian bead (Acc. No.1681, size 1.00 x 0.5 x 0.4 cm) also deserves the special mention. The trunk and legs are broken but surviving body of elephant is able to show the mastery of artisan. A horizontal perforation across the bead may be seen for threading. Elephant is sacred to Jaina, Hindus and Buddhists. It is conceived as vehicle of Indra and associated with Lord Ganesha as well as *abhishek* Lakshmi. It is a symbol for intelligence, dignity, power and peace. It is also connected with nativity of Buddha. It serves as the *lanchhana* of the Ajitanatha, the second *tirthankara* of Jain pantheon (Tiwari 1981:96). Archaeological evidences suggest its amuletic use in the early centuries of the Christian era. An elephant shaped carnelian bead found from Taxila datable to 3rd-4^{rth} century AD (Beck1941:55).

Four unfinished broken zoomorphic stone beads (Figure 4) are also found in Vaishali and kept in reserve collection in Archaeological Museum Vaishali. These specimens are described in following paragraphs.

Peacock shaped unfinished bead made of soft stone(Acc. No.1679, size2.8 x 1.7 x 0.8 cm)of grey colour deserve the mention for its fine execution .The body of peacock is decorated with engraved lines and eyes indicating dot within circle .Beak ,legs, and lower part of feather is missing. It is unfinished bead without perforation. In Hindu mythology peacock is vehicle of God Kartikeya. Peacock is a beautiful bird with the

brightest plumage. He is the very embodiment of the joyous spirit. A peacock shaped jasper bead also reported from Kausambi (Sharma 1968: 123).

Bird shaped unfinished bead (Acc. No.1683, size2.5 x 0.9 x 0.6 cm) without perforation is made of milky quartz. Head and legs of bird are missing. The feather of bird is marked with slanting engraved lines.

Banded agate bead in the shape of fish (Acc. No.1682, size2.5 x 1.0 x 0.5 cm) with red colour and white bands. Its lower portion along with perforation is partly broken.

A fine executed bead made of banded agate in the shape of insect (Acc. No.1690, size2.3 x 0.4 x 0.5 cm) is worth mentioning. Its lower part is broken along with the perforation. It bears a very high polish resembling glaze.

Conclusion

Thus, these zoomorphic stone beads not only testified the aesthetic sense and craftsmanship of people of Vaishali but also throw the light on the religious believers of bygone society. Unfinished broken stone beads of Vaishali suggest that these beads were manufactured locally, and lapidary art was very developed in Vaishali. These zoomorphic beads may be comparable to Taxila. It may be noted that maximum zoomorphic stone beads in the shape of duck, crow, bird, lion, elephant, bull, dog, ram, frog and tortoise found from Taxila ranging from 5thcentury BC to 4^{rth}century AD. It may also indicate cultural link between Vaishali and Taxila. It is also verified by ancient Buddhist texts. Mahali, a Lichchhavi chieftain went for education from Vaishali to Taxila at the time of Buddha. Various *Jataka* stories like Vineelaka Jataka (Jha 2013:30-31), Gandhar Jataka (Jha 2013: 32-33) and Suruchi Jataka (Jha 2013:34-35), testified the connection between Videh or Mithila and Taxila. Five number of bird shaped stone beads including one cock and one peacock shaped beads found in Vaishali, which is well known Buddhist site. The possibility of the bird is having some Buddhist symbolism. Two carnelian bird amulets occur in the reliquary of the stupa at Piprahwa (Sharma1969:123).Six bird shaped stone beads also recovered from a bowl with bones, gold beads ,pearls from stupa number 18 of Kushana period from Saheth-Maheth (Marshall 1914:15). Vaishali being an active centre of trade since ancient time lies on the famous trade route from Pataliputra to Nepal, the stone beads in the shape of various animals and birds may certainly in great demand by the traders naturally preferred as auspicious symbol for material prosperity and wealth. The stone beads with the motif of tortoise, elephant, cock, hare, bird, peacock, insect and frog may be popular in common man or certain communities of Vaishali. These beads also provide an insight in understanding development and technical advancement of lapidary's art in ancient Vaishali.

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References

Beck, H. C. 1941. *The Beads from Taxila*. M.A.S.I. No. 65. Delhi: Manager of Publications.

Deva Krishna and Vijayakanta Mishra. 1961. *Vaishali Excavations:1950*. Vaishali: Vaishali Sangh.

Dhavalikar, M. K. 1989. Prabhas Patan. in *An Encyclopaedia of Indian Archaeology*. Volume II. A. Ghosh. (Ed.). New Delhi: Munshiram Manoharlal Pub. Pvt. Ltd.

Dikshit, M. G 1952. Beads from Ahichchhatra (U.P.). *Ancient India* No. 8. New Delhi: Archaeological Survey of India.

Dikshit, M. G. 1968. *Excavations at Kaundinyapura.* Bombay: The Director of Archives and Archaeology Maharastra State.

Dubey, S. R. and S. K. Singh. 2018. Beads from Pakkakot: A study. in *ICON.* Volume 5. Delhi and Bhopal: B. R. Publishing Corporation and Wakenkar Book Art and Heritage Welfare Society.

Ghosh, A. 1989. *An Encyclopaedia of Indian Archaeology*. Volume I. New Delhi: Munshiram Manoharlal Pub. Pvt. Ltd.

Jha, R. K. 2013. *Mithila me Bauddha Dharma* (in Hindi). Delhi: Buddhist World Press.

Mani. B. R., I. D. Dwivedi, S. K. Manjul and A. Manjul. 2011. Excavations at Lathiya (Ghazipur District, Uttar Pradesh): 2009-10. in *Ancient India. New Series. No. 1*. New Delhi: Archaeological Survey of India.

Marshall, J. H. 1914. Excavations at Sahet Maheth. in *A.S.I.A.R. 1910-11*. Calcutta: Superintendent Government Printing.

Mittra, S. K. 2012. India and the Harappan Civilization. in *Rediscovering India 1961-2011.* New Delhi: Archaeological Survey of India.

Niharika. 1993. *A Study of Stone Beads in Ancient India*. New Delhi: Bharatiya Kala Prakashan.

Prasad, K. 2015. *The Glory That Was Vaishali*. Patna: K.P. Jayaswal Institute.

Ramachandran, T. N. 1985. The Glory that was Vaishali. in Homage *to Vaishali.* Yogendra Mishra. (ed.). Vaishali: Research Institute of Prakrit. Jainology and Ahimsa.

Rangarajan, H. 2010. *Images of Skanda-Karttikeya-Murugan An Iconographic Study*. Delhi: Sharada Publishing House.

Sharma, G. R. 1969. *Excavations at Kausambi 1949-50*. M.A.S.I. No. 74. Delhi: Manager of publications.

Singh, B. P. and A. K. Singh. 2004. Excavations at Sarai Mohna 1967-68 (A satellite site of ancient Varanasi). in *Bharti. volume 27*. Varanasi: Banaras Hindu University.

Sinha, A. K. 2012. Protohistoric Period (c. 4500 – 800 BCE). in *Rediscovering India 1961-2011*. New Delhi: Archaeological Survey of India.

Sinha, B. P. and B. S. Verma. 1977. *Sonpur Excavations (1956 and 1959-1962)*. Patna: Directorate of Archaeology and Museums, Bihar.

Sinha, B. P. and S. R. Roy. 1969. *Vaishali Excavations 1958-1962*. Patna: Directorate of Archaeology and Museums Bihar.

Sivaramamurti, C. 1974. *Birds and Animals in Indian Sculpture*. New Delhi: National Museum.

Thapar, B. K. 1967. Prakash: A Chalcolithic Site in Tapti Valley. in *Ancient India No. 20 and 21*. New Delhi. Archaeological Survey of India.

Tiwari, M. P. 1981. *Jaina Pratima Vijnan*. Varanasi: Parsvanath Vidyasram Shodh Sansthan.

Verma, B. S. 2007. *Chirand Excavations Report (1961-1964 and 1967-1970).* Patna: Directorate of Archaeology, Department of Youth, Art and Culture, Government of Bihar.